

Artificial Intelligence Solutions for Smart Cities

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Thanks to the Artificial Intelligence, we can now analyze data and obtain unimaginable solutions to today's problems. Nevertheless, our success is not entirely based on algorithms, it also comes from our ability to follow our "gut" when choosing the best combination of algorithms for an intelligent artefact. Their development involves the use of both connectionist and symbolic systems, that is to say data and knowledge. Moreover, it is necessary to work with both historical and real-time data. It is also important to consider development time, costs and the ability to create systems that will interact with their environment, will connect with the objects that surround them and will manage the data they obtain in a reliable manner. The need for progress, the growing processing capacity and the low cost of the Cloud have facilitated the development of new, powerful algorithms. The efficiency of these algorithms in Big Data processing, Deep Learning and Convolutional Networks is transforming the way we work and is opening new horizons.

This is where the role of tools such as Deep Intelligence (<https://app.deepint.net>) comes into play, they are essential because they allow us to capture all types of data, from sensors, databases, internet, social networks and other sources. Such tools then visualize the data they have captured, complete them or normalize them if necessary and finally use them to create highly sophisticated models. In the case of Deep Intelligence, dashboards can also be created so as to fully adapt to the nature of each problem [1-121]. Moreover, tools of this type help us choose the best algorithm and optimize it so that it meets the needs of the problem to be solved. Deep Intelligence brings Machine Learning closer to society and socializes AI.

The evolution of intelligent computer systems will be examined. The need for human capital will be discussed, as well as the need to follow one's "gut instinct" in problem-solving. The importance of IoT, Blockchain and Edge Computing as contributors to the development of "deep tech" distributed intelligent systems that have the capacity to interact with the environment will be discussed. "Smart" infrastructures need to incorporate all added-value resources so they can offer useful services to the society, while reducing costs, ensuring reliability and improving the quality of life of the citizens [122-218]. The combination of AI, IoT and Blockchain in an Edge Computing model or elsewhere, offers a world of possibilities and opportunities. Smart cities, bioinformatics, smart grids, industry 4.0, etc. will experience major improvements if AI is used in a wise and sustainable manner. As part of this keynote several use cases of intelligent systems will be presented and it will be analysed how the processes of implementation and use have been optimized by means of different tools [219-221].

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